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Forum: 6th committee
Issue: Establishing updated international guidelines regarding the legal communal ownership of the submarine communications cables.
Chair: Sarah Nielsen-Bager
Contact: munny6th@gmail.com

Description of Issue

This report will recognize the United Nations Convention on the Law of the Sea (UNCLOS) as the international agreement establishing a legal framework for all marine and maritime activities, including that of the framework of ownership and maintenance of undersea cable activities and undersea infrastructure.¹ Seeing as undersea fiber-optic cables are one of the most critical pieces of global infrastructure, it is in the interest of all member states to cooperate towards updating the definitions of coastal and maritime boundaries, to better regulate the seabed activities.

The issue becomes one in need of international attention when considering jurisdiction over and ownership of submarine cables. These can seem unclear in international law, and uncertainty over the geographic delimitation of ownership can thereby arise. Concerns also arise internationally around the rise of hybrid warfare, the perceived hostility of Russia's foreign policy, fears of a large scale cyberattack, and growing technical sophistication of terrorist groups. In some nations, the undersea cable network has started to become a national

¹ https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf



security priority, with experts calling for military action. While possible threat scenarios of deliberate attacks might be statistically unlikely, there is a need for attention on vulnerabilities which the cable network faces due to accidental damage and non-human hazards. To resolve the issue, it is of importance to discuss the governance of submarine communications cables at a global level, regulation of the industry, the different actors involved, as well as clarification of the responsibilities and right of actors and global governance.

Background Information

The first submarine cables in the world were laid in the English Channel in 1851. The transatlantic submarine cable was completed in 1866, and since then, submarine cable networks in the world have expanded gradually. In 1871, Japan became connected with Europe by two routes, via the Indian Ocean and via Siberia, making international telecommunication possible in Japan for the first time.

After the invention of the telephone, communication methods expanded dramatically, and in 1891, the world's first submarine cable for telephone was built in the English Channel. The first transpacific submarine cable (TPC-1) was constructed in 1964, paving the way for many other transpacific submarine cables. With the launch of INTELSAT-II in 1967, satellite communication became inaugurated. As the optical submarine cable was invented in the 1980s, telecommunications with high quality and high capacity became possible, and optical submarine cable networks were extended all over the world.

In recent years, submarine cables installations are progressing in the world, with reliance on global high-speed telecommunications is higher than ever before. Undersea cables support numerous aspects of the modern lifestyle, despite of the awareness put towards it being one of the backbones of the global economy. In the present world, commercial undersea cables carry around 97% of the world's internet and telecommunications data.²

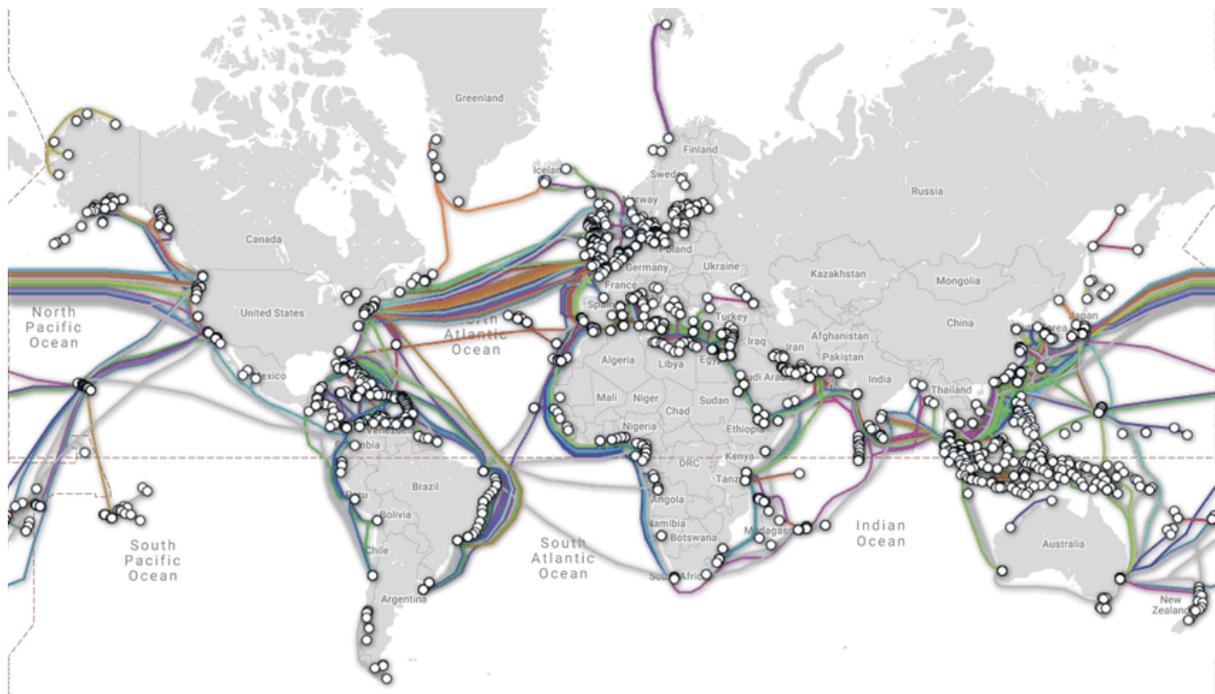


Figure 1 Submarine Cable Map ³

As of 2021, there are over 1.3 million kilometers of submarine cables in service globally, carrying over \$10 trillion of financial transactions, massive amounts of data and internet traffic across the world.⁴ Various sectors including the banking industry, commercial trade, defense data, and daily internet usage depend on this critical infrastructure.

² <https://blog.viavisolutions.com/2020/11/25/overcoming-the-challenges-of-submarine-fiber-optic-cables/>

³ <https://submarine-cable-map-2021.telegeography.com/>

⁴ <https://www2.telegeography.com/submarine-cable-faqs-frequently-asked-questions>



Cables were traditionally owned by telecom carriers who would form a consortium of all parties interested in using the cables. In the 1990s, entrepreneurial companies started to build private cables to sell the capacity to users. One of the biggest changes today is the type of companies involved in building cables. Content providers such as Google, Microsoft, Facebook and Amazon are major investors in new cables.

The issue of the legal framework around submarine communications cables often lay in the issue with spread of ownership. Submarine cables are subject to various threats of different scale to their security, some of which is described below:

a) Network diversity

There is a lack of diversity in cables routes, which is dictated by a variety of limitations, including the cost and ease of permitting requirements, the topographic makeup of the seabed, the cost and ease of laying cables, and protections for marine environments. The landing sites are often chosen based on the ease with which US states allow infrastructure to be built. Undersea cables are usually owned by a consortium of owners, which is responsible for costs associated with laying new undersea cables. The consortium model complicates financial responsibility for repairing the cable when it is damaged; more generally, it removes ownership—with all of its responsibilities and incentives—from the state. Domestic regulations and permitting requirements aiming to mitigate ecological damage further restrict options for cable routes.

b) Natural disasters

Submarine cables are threatened by natural disasters such as earthquakes, tsunamis, typhoons, and subsea landslides. This is especially true for less-developed island nations. In 2015, a typhoon was believed to have cut Mariana Island's only undersea fiber-optic cable, resulting in a complete loss of communications with the outside world; financial services, such as credit cards and ATM machines; telephone connections to emergency services.

c) Unintentional Human activity

The most common cause of damage to the submarine cables is human damage and negligence. 40% of cable disruptions lead back to commercial fishing, and 15% leads back to anchoring incidents. Other benign human factors include dredging and dumping, oil and gas development, offshore wind and energy development, hydrokinetic projects, ocean thermal energy conversion, deep-sea mining operations, and other renewable energy projects. The International Cable Protection Committee has issued a manual with recommendations aimed at mitigating damage to submarine cables due to human interference, error, and fishing activities.⁵

d) Intentional human activity

The potential for the sabotage of undersea cables during times of conflict or by transnational terrorism exists, but such incidents are historically rare. During Egypt's massive internet outage in 2008, three cables were cut and the Egyptian Coast Guard caught divers trying to cut the fourth. In 2010, terrorists also cut cable lines near Cagayan de Oro in the Philippines.

⁵ <https://cil.nus.edu.sg/wp-content/uploads/2009/10/ICPC-Recommendation-No.-6.pdf>



Thus, while activity targeting submarine cables is rare, a few notable historical examples exist.

With the number of threats facing the maritime cables comes the question of responsibility of states in relation to communal ownership. As the cables are owned by a large spread of companies, it can be challenging to hold these accountable in accordance with international law, especially when the framework in the eye of many shareholders seem unclear. Under UNCLOS, states are asked to establish national legislation concerning the functioning and protections of the system, including criminalizing the destruction or theft of a submarine cable, yet most states have not fulfilled these obligations, and in some countries, it is unclear what government agency is in charge. There is an urgent need for countries to review their protection regimes and strengthen the implementation of existing legal obligations.

Potential solution to the issue

Submarine cables must be considered in broader maritime management and marine spatial planning processes. States could, for instance, establish cable protection zones over submarine cables of national significance in order to prohibit or restrict activities in zones where damage is likely to occur. While such approaches are viable within territorial waters and Exclusive Economic Zones of a coastal state, the majority of cables are in the high seas, and rights and responsibilities under international law—both of states and ICTs (Information and Communication Technologies)—are ambiguous at best. There is even no agreed-upon definition of cables under international law. Other challenges arise in situations where maritime boundaries have not been delineated or are subject to ongoing contestation and



disputes. No international governing body is in charge of overseeing and protecting cables or addressing disputes.

Relevant Resolutions and Treaties

1884 Convention for the Protection of Submarine Telegraph Cables

1958 Geneva Convention on the Law of the Sea

- Convention on the Continental Shelf

<https://legal.un.org/avl/ha/gclos/gclos.html>

1982 United Nations Convention on the law of the Sea (UNCLOS)

https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf

Key terms

Coastal State – Universally understood to be states with a sea-coastline. A coastal State's jurisdiction relates to its own maritime zones, and encompasses the resources and activities therein as well as external impacts on them

Territorial Sea – a belt of coastal waters extending at most 12 nautical miles (22 km; 12 mi) from the baseline of a coastal state. The territorial sea is regarded as the sovereign territory of the state.

Contiguous Zone – A zone contiguous to a territorial sea of a coastal state, which may not extend beyond 24 nautical miles from the baselines from which the breadth of the territorial sea is measured.

Exclusive Economic Zone – An area of coastal water and seabed within a certain distance of a country's coastline, to which the country claims exclusive rights for fishing, drilling and other economic activities.

Continental Shelf – The area of a seabed around a large land mass where the sea is relatively shallow compared with the open ocean.

High Seas – The open ocean, especially that not within any country's jurisdiction

The Area – In the context of the United Nations Conventions on the Law of the Sea, the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction.

Useful sources

The International Cable Protection Committee - <https://www.iscpc.org/>

Submarine Cable Map - <https://www.submarinecablemap.com/>

European Subsea Cables Association -

<https://www.escaeu.org/articles/submarine-telecommunications-cables/>

North America Submarine Cables Association - <https://www.n-a-s-c-a.org/>



Asian-Pacific Optical Fibre & Cable Industry Association - <http://www.apofc.com/about/>

Submarine Cable Networks <https://www.submarinenetworks.com/en>

Delegate Preparation

- Does your nation currently have an established legal framework towards submarine cables?
- Is your nation especially vulnerable in relation to any of the threats facing stability of submarine communications cables?
- Does your nation work towards maintenance of submarine cables to prevent damage to your nation's infrastructure?
- What further measures can be taken in order to establish a clearer legal framework around the regulations of submarine cables activity?